


Amendments of the Claims:

A detailed listing of all claims in the application is presented below. This listing of claims will replace all prior versions, and listings, of claims in the application. All claims being currently amended are submitted with markings to indicate the changes that have been made relative to immediate prior version of the claims. The changes in any amended claim are being shown by strikethrough (for deleted matter) or underlined (for added matter).

 1. (Original) A system supporting a sash that is laterally removable from between opposed window jambs, the system comprising:

- a. a pair of sash support arms mounted to hang freely downward on respective opposite stiles of the sash and to pivot from downwardly hanging positions to outwardly extended positions that the support arms assume when supporting the sash;
- b. the sash support arms in the downwardly hanging positions being disposed so that as the sash is lowered toward a supported position, the downwardly hanging arms engage sash supporting platforms of counterbalanced sash shoes locked into the jambs so that sash-lowering engagement between the arms and the platforms pivots the arms outward along the platforms; and
- c. outer end regions of the sash support arms in the outwardly extended positions resting on regions of the platforms spaced from the sash and arranged vertically under counterbalance elements connected to the shoes to support the weight of the sash.

2. (Original) The system of claim 1 wherein the sash supporting platforms of the shoes extend toward the sash stiles so that inner regions of the platforms engage the sash support arms in the downwardly hanging positions and so that outer regions of the platforms engage the outer end regions of the sash support arms in the outwardly extended positions.

3. (Original) The system of claim 2 wherein the counterbalance elements are connected to the shoes in regions vertically above the outer platform regions.

4. (Original) The system of claim 1 wherein the shoes include locking elements deployable to lock the shoes to jamb projections during removal and replacement of the sash.

5. (Original) The system of claim 4 wherein the locking elements are pivotally mounted on the shoes and latched in undeployed positions out of engagement with window jambs.

6. (Original) The system of claim 4 wherein the locking elements are formed as extruded metal hooks.

7. (Currently amended) The system of claim 1 wherein the shoes and the sash support arms are each formed of metal extrusions, ~~having evenly extending profiles.~~

8. (Original) The system of claim 7 wherein the shoes are available in different widths formed as different predetermined lengths of the shoe extrusion so that different widths of shoes fit different widths of jamb channels.

9. (Original) The system of claim 8 wherein shoes of different widths are adapted to connect to different numbers of counterbalance elements.

10. (Original) The system of claim 7 wherein the extrusions for the sash support arms are available in different lengths to fit different jamb dimensions.

11. (Original) The system of claim 10 wherein the different length sash support arms have extruded code lines indicating size.

12. (Currently amended) In a system counterbalancing a window sash supported by a pair of counterbalanced sash shoes so that the sash extends between a pair of jambs from which the sash is removable by maneuvering the sash upward and laterally while the shoes are locked in the jambs, the improvement comprising:

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cont
- a. the shoes being formed of a metal extrusion having a predetermined profile extending ~~evenly~~ for a width of the shoes and establishing an ~~elevational~~ a configuration of the shoes; and
 - b. the ~~elevational~~ configuration extending integrally between a hook-shaped upper region formed to interconnect with a counterbalance element and an L-shaped lower region forming a platform extending toward the sash from vertically below the upper region.

- 13. (Original) The improvement of claim 12 wherein the sash is supported on the shoes by sash support arms formed of a metal extrusion having an evenly extending profile.
- 14. (Original) The improvement of claim 13 wherein the sash support arms are movably mounted on the sash to rest on the shoes in outwardly extending positions of the sash support arms located vertically below the upper region interconnected with the counterbalance elements.
- 15. (Original) The improvement of claim 13 wherein the sash support arms are mounted on the sash to pivot between outwardly extending positions supporting the sash and downwardly hanging positions that the support arms assume when not supporting the sash.
- 16. (Original) The improvement of claim 12 wherein the shoes include locking elements that engage jamb projections to lock the shoes during sash removal and replacement.
- 17. (Original) The improvement of claim 16 wherein the locking elements are formed of a metal extrusion and are pivotally mounted on the shoes.
- 18. (Currently amended) The improvement of claim 16 wherein the locking elements are formed as hooks that catch on the jamb projections and the shoes have latches that latch the locking elements in undeployed positions out of engagement with ~~window~~ the jambs.
- 19. (Original) The improvement of claim 12 wherein the elevational configuration of a mid-region of the shoe is formed to support a guide that slides in a jamb to guide vertical movement of the shoe.

20. (Original) The improvement of claim 19 wherein the profile configures a guide retaining groove that receives the guide.

21. (Currently Amended) The improvement of claim 20 wherein the profile ~~configures~~ includes a latch retaining groove for receiving a hook latch and a pin groove for receiving a pivot pin of the shoe hook.

22. (Original) The improvement of claim 12 wherein the shoes are formed of predeterminedly variable lengths of the extrusion to form shoes of different widths fitting different sizes of jamb channels.

23. (Original) The improvement of claim 22 wherein shoes of different widths have upper regions adapted to interconnect to different numbers of counterbalance elements.

24. (Original) The improvement of claim 13 wherein different metal extrusions having different evenly extending profile lengths form sash support arms available in different lengths to accommodate different distances between opposite shoes.

25. (Original) The improvement of claim 24 wherein the different lengths of sash support arms have extruded code lines indicating size.

26. (Withdrawn)

27. (Withdrawn)

28. (Withdrawn)

29. (Withdrawn)

30. (Withdrawn)

31. (Withdrawn)

32. (Withdrawn)

33. (Withdrawn)

34. (Withdrawn)

35. (Withdrawn).

36. (Withdrawn)

37. (Withdrawn)

38. (Withdrawn)

39. (Currently amended) A sash support system comprising:

- a. a plurality of sash support elements each formed of a metal extrusion having an evenly extending a profile establishing an elevational a respective configuration of the each element;
- b. the ~~elevational~~ configuration of a first one of the extruded elements integrally forming a shoe having extending integrally from a hook-shaped upper region engaging a counterbalance and to a platform-shaped lower region supporting a sash; and
- c. the ~~elevational~~ configuration of a second one of the extruded elements integrally forming a sash support arm pivotally connected to a stile of the sash to engage the sash supporting platform-shaped lower region of the shoe.

40. (Currently amended) The system of claim 39 wherein the ~~elevational~~ configuration of a third one of the extruded elements forms a shoe lock connected to the lower region of the shoe to be movable between deployed and undeployed positions.

41. (Original) The system of claim 40 wherein the shoe profile configures a pin groove for receiving a pivot pin supporting the shoe lock.

42. (Original) The system of claim 40 including a resilient latch mounted on the shoe for retaining the shoe lock in the undeployed position.

43. (Original) The system of claim 42 wherein the shoe lock and the latch are configured so that the shoe lock is manually latchable and unlatchable.

44. (Original) The system of claim 40 wherein the shoe lock is pivotally movable between the deployed and undeployed positions and is downwardly dependent from the shoe in the deployed position.

45. (Original) The system of claim 39 including a resin guide mounted on the shoe.

46. (Currently amended) The system of claim 45 wherein the ~~elevation~~ configuration of a mid-region of the shoe is formed with a locking slot for receiving the resin guide.

47. (Original) The system of claim 39 wherein the sash support arm is pivotally mounted on the sash stile to move between an outwardly extending position supporting the sash and a downwardly hanging position that the support arm assumes when not supporting the sash.

48. (Original) The system of claim 47 wherein the sash support arm braces against a mounting bracket limiting movement of the sash support arm beyond the outwardly extending and downwardly hanging positions.

49. (Original) The system of claim 39 wherein the shoe is available in different widths established by different predetermined lengths of the first extruded element to accommodate different widths of jamb shoe channels.

50. (Original) The system of claim 49 wherein upper regions of different shoe widths are adapted for connecting to different numbers of counterbalance elements.

51. (Original) The system of claim 39 wherein the sash support arm is available from a plurality of extrusions having different evenly extending profiles establishing different lengths for the support arm.

52. (Original) The system of claim 51 wherein the plurality of extrusions for the sash support arm are formed with evenly extending code lines indicating different arm lengths.

53. (Currently amended) A sash support comprising:

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- a. sash support arms movably mounted respectively on each stile of a sash so that the support arms hang downward in dependent positions when not supporting the sash and move outward to braced positions in response to engagement of the support arms with locked sash shoes as the sash is lowered between the shoes so that the weight of the lowered sash urges the sash support arms outward on the shoes to the braced positions; and
 - b. the support arms in the braced positions having end regions resting on respective sash shoes in sash support ~~shoe~~ regions vertically under upper shoe regions where counterbalance elements are connected to the sash shoes.

54. (Original) The support of claim 53 wherein mounting brackets pivotally mount the support arms on the sash stiles and limit movement of the support arms beyond the downwardly hanging and braced positions.

55. (Currently amended) The support of claim 60 wherein the profile of the extrusion for the shoes forms the upper regions connected to counterbalance elements vertically above the support regions engaging end regions of the braced support arms.

56. (Original) The support of claim 55 wherein the support regions of the shoes extend toward the sash stiles to engage the support arms in their downwardly hanging positions when the sash is lowered into engagement with the shoes.

57. (Original) The support of claim 56 wherein the support arms move from their downwardly hanging positions to their outward braced positions by sliding along the support regions of the shoes as the sash is lowered.

58. (Currently amended) The support of claim 53 wherein the sash support arms are formed of a metal extrusion, ~~having an evenly extending profile.~~

59. (Currently amended) The support of claim 58 wherein a plurality of extrusions for the support arms have different ~~evenly extending~~ profiles establishing different arm lengths and are provided with extruded coding lines indicating support arm length.

60. (Currently amended) The support of claim 53 wherein the shoes are formed of a metal extrusion, ~~having an evenly extending profile.~~

61. (Original) A system locking counterbalance shoes to window jambs while a sash supported on the shoes is removed from between the window jambs, the system comprising:

- a. the shoes having hooks that are pivotally mounted on lower regions of the shoes to move between latched and unlatched positions;
- b. the hooks in unlatched positions hanging dependently downward from the shoes to engage the jambs and hook under lances formed in the jambs as the shoes rise; and
- c. the hooks in latched positions being retained out of engagement with the jambs and clear of the lances.

62. (Original) The system of claim 61 wherein resilient latches are carried on the shoes for holding the hooks in the latched positions.

63. (Original) The system of claim 62 wherein the hooks are manually movable into the latched positions and are released from the latched positions by pressing between ends of the hook and the latch.

64. (Currently amended) The system of claim 61 wherein the hooks and the shoes are each formed of metal extrusions, ~~having evenly extending profiles.~~

65. (Original) The system of claim 64 wherein the shoes have extrusion-formed grooves that receive pivot pins supporting the hooks.

66. (Original) The system of claim 65 wherein the shoes have extrusion-formed slots that retain resilient latches for holding the hooks in the latched positions.

67. (Currently amended) A system supporting a sash that is laterally removable from between opposed window jambs and is supported on counterbalanced shoes that run vertically

within the jambs and are separated sufficiently to allow lateral movement of the sash, the system comprising:

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- a. the shoes having platforms that extend toward the sash to support the sash;
 - b. the sash having a pair of support arms, one of the support arms being secured to each sash stile so that the sash support arms hang downward in positions in which lower ends of the support arms engage sash end regions of the shoe platforms when the sash and the support arms are moved downward from above the shoe platforms;
 - c. the sash support arms being mounted on the sash to pivot between the downwardly hanging positions and outwardly extending positions in which the sash support arms engage jamb end regions of the shoe platforms as weight of the downwardly moved sash transfers to the shoes via the support arms; and
 - d. counterbalance elements exerting a lifting force on the shoes in regions vertically above the jamb end regions of the shoe platforms engaged by the sash support arms in the outwardly extending positions.

68. (Original) The system of claim 67 wherein the shoe platforms are configured with steps that the ends of the support arms slide downward over as the support arms move from the sash end regions to the jamb end regions of the shoe platforms.

69. (Original) The system of claim 67 wherein the sash support arms are braced against movement beyond the downward hanging positions and the outwardly extending positions.

70. (Currently amended) The system of claim 67 wherein the sash support arms are formed of a metal extrusion, ~~having an evenly extending profile.~~

71. (Original) The system of claim 70 wherein the extrusions are available in different profiles forming support arms of different lengths to accommodate the sash to different window dimensions.

72. (Currently amended) The system of claim 71 wherein the extrusions of different profiles are formed with coding lines to indicate the different lengths of the sash support arms.

73. (Currently amended) The system of claim 67 wherein the shoes are formed of a metal extrusion, ~~having an evenly extending profile.~~

74. (Currently amended) A system counterbalancing a laterally removable sash supported by counterbalanced sash shoes respectively running vertically in opposed jambs arranged along opposite stiles of the sash, the system comprising:

- a. support arms pivotaly mounted on the sash to extending extend between the sash and sash shoes biased upward at lifting regions spaced from each sash stile, the support arms being arranged for transferring the weight of the sash to the shoes at support regions vertically below the lifting regions to minimize any moment arms tending to turn the shoes around horizontal axes; and
- b. the support arms moving to downwardly hanging positions upon movement of the sash upward and laterally from the shoes.

75. (Original) The system of claim 74 wherein the support arms are braced in support positions transferring the weight of the sash to the support regions of the shoes, and the support arms otherwise hang downward when not transferring sash weight to the shoes.

76. (Currently amended) The system of claim 74 wherein the shoes are formed of a metal extrusion, ~~having an evenly extending profile.~~

77. (Currently amended) The system of claim 74 wherein the sash support arms are formed of a metal extrusion, ~~having an evenly extending profile.~~

78. (Original) The system of claim 77 wherein the extrusions are available in different profiles forming support arms of different lengths to accommodate the sash to different window dimensions.

79. (Original) The system of claim 74 wherein the shoes have platforms extending from the support regions toward the sash to engage support arms hanging downward from a sash being lowered onto the shoes.

80. (Currently amended) A system supporting a sash that runs vertically within an opposed pair of window jambs containing counterbalance sash shoes, the sash being movable laterally of the jambs for withdrawing the sash from between the jambs, and the system comprising:

- a. a pair of movable support arms ~~engaging~~ pivotaly mounted on the sash stiles and extending to the counterbalance shoes ~~and arranged for to transferring transfer~~ the weight of the sash to support regions of the counterbalance shoes;
- b. the counterbalance shoes being biased upward at lifting regions arranged vertically above the support regions to minimize any moment arms tending to turn the shoes around horizontal axes; and
- c. the support arms being moved to hang downwardly in response to lifting the sash upwardly ~~of~~ relative to the shoes in a region between the lifting regions when the sash is lifted to remove its weight from the support regions.

81. (Original) The system of claim 80 wherein the support arms move in response to being subjected and not subjected to sash weight.

82. (Currently amended) The system of claim 80 wherein the shoes are formed of a metal extrusion, ~~having an evenly extending profile.~~

83. (Currently amended) The system of claim 80 wherein the sash support arms are formed of a metal extrusion, ~~having an evenly extending profile.~~

84. (Original) The system of claim 83 wherein a plurality of extrusions are available in different lengths to form support arms that can bridge different distances between stiles of the sash and the support regions.

85. (Original) The system of claim 80 wherein the support arms move inwardly toward the sash when the sash is lifted from the shoes.

86. (Currently amended) A system supporting a sash that is laterally removable from between opposed window jambs, the system including counterbalance shoes arranged within the jambs to be spaced laterally from stile edges of the sash to allow lateral movement of the sash for removing the sash from between the jambs, and the system comprising:

- a. sash support arms ~~arranged for~~ bridging distances between the shoes and stiles of the sash, the support arms being movable between sash supporting positions in which the support arms transfer weight of the sash to the shoes and sash uplifted positions in which the support arms hang downward from the sash stiles and allow lateral movement of the sash between the shoes;
- b. counterbalance lifting regions for the shoes being arranged vertically above support regions that uphold the weight of the sash transferred via the support arms to the shoes so that the sash weight does not subject the sash shoes to moment arms tending to turn the sash shoes about horizontal axes; and
- c. the sash support arms in the support positions being braced against moving in response to sash weight.

87. (Currently amended) The system of claim 86 wherein the shoes are formed of a metal extrusion, ~~having an evenly extending profile.~~

88. (Currently amended) The system of claim 86 wherein the sash support arms are formed of a metal extrusion, ~~having an evenly extending profile.~~

89. (Original) The system of claim 88 wherein a plurality of extrusions are made in different lengths to bridge different distances between stiles of the sash and the support regions.

90. (Original) The system of claim 86 wherein the shoes have platforms extending upward and toward the sash from sash weight support regions engaged by the support arms.